Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

Applicant/Contact name and address: **Fergus County**
712 Main St, Suite 210
Lewistown, MT 59457

1. Type of action: **Application for Beneficial Water Use Permit 40C 30065261**

2. Water source name: **Unnamed Tributary of Crooked Creek (aka Sacagawea River)**

3. Location affected by project:

The point of diversion (POD) is a dam located in the SW SW NW Section 25 T20N R26E, while the place of use is the W2 NW Section 25 and the E2 NE Section 26, both in T20N R26E, Fergus County. Because the reservoir impoundment extends into Section 26, Crooked Creek Coop State Grazing District (CCGD) will be added as a shared owner of the water right.

4. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to divert 96.0 acre-feet (AF) from an Unnamed Tributary of Crooked Creek, by means of a dam from January 1 to December 31 annually. The dam is located approximately 10 miles north-northeast of the Town of Valentine in Fergus County, MT. The purpose requested through this application is to water stock. The reservoir has a surface area of 12.0 acres and a maximum depth of 20 feet as measured to elevation of spillway crest.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

5. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

Dept. of Environmental Quality Website - TMDL 303d listing
MT. National Heritage Program Website - Species of Concern
USDI Fish & Wildlife Service Website - Endangered and Threatened Species
MT State Historic Preservation Office - Archeological/Historical Sites
USDA Natural Resources Conservation Service – Web Soil Survey
USDI Fish & Wildlife Service – Wetlands Online Mapper
Montana Fish, Wildlife & Parks – MFISH Website

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **-** *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: **No Significant Impact**

Neither this Unnamed Tributary of Crooked Creek nor Crooked Creek itself has been identified as a chronically or periodically dewatered stream by DFWP. Water is stored in a 96.0 AF on-stream reservoir, filled primarily during spring runoff and precipitation events. Flows have been adequately impounded in the reservoir on this unnamed drainage for more than 35 years. Water availability in this Unnamed Tributary of Crooked Creek coincides with spring runoff or precipitation events that generally affect a broad area typically making an abundance of water available during that specific occasion. Once impounded, any water not lost to evaporation or seepage could be available for stock use later in the year when stream flows have either diminished or ceased. The depletion of 96.0 AF from this source should not have a significant impact on water quantity.

Water quality **-** *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: **No Significant Impact**

This Unnamed Tributary of Crooked Creek is not listed on the DEQ website and therefore it is assumed that no water quality assessment for this source has been completed. In addition, Crooked Creek is not identified as water quality impaired. As mentioned above under water quantity, some water would be lost to evaporation from the reservoir surface and to seepage. The dam was breached in 2011 to remedy water quality issues associated with alkali build-up, generally caused by alkali salts leaching from the soil profile in response to excessive moisture conditions. This alkali leaching problem is considered a rare occurrence and effected a large area as a specific response to flooding issues of 2011. The Applicant purchased and installed a drainage device in the reservoir during reconstruction of the dam to facilitate downstream releases, which could also help alleviate problems associated with excessive moisture conditions affecting the soil profile. This application is not expected to have a significant impact to water quality; the project has adequately impounded and provided stock water for many years prior to this application being submitted.

Groundwater **-** *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: **No Significant Impact**

The localized groundwater table adjacent to the reservoir will remain generally the same; the reservoir has been in place for many years. There is a low likelihood that groundwater will be significantly affected as a result of this proposal.

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: **No Significant Impact**

As mentioned above, prior to 2011 the spillway drained to a natural channel on the east side of the reservoir bypassing the dam, however in 2012, the Applicant installed a drainage device that would allow releases from the dam itself. Again, the dam has adequately held water from more than 35 years and no significant impacts related to the diversion works are anticipated.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: **No Significant Impact**

The Montana National Heritage Program lists six animal species as Species of Concern and six Potential Species of Concern within Township 20 North Range 26 East. Common names for the four bird, one amphibian and one mammal listed as Species of Concern are the Greater Sage-Grouse, Great Blue Heron, Burrowing Owl, Mountain Plover, Plains Spadefoot (toad), and the Black-tailed Prairie Dog. The common names for the six Potential Species of Concern, five fish and an insects are the Brook Stickleback, Brassy Minnow, Plains Minnow, Burbot, Creek Chub and Familiar Bluet (damselfly). The website does not identify any Plant Species of Concern in the area of interest.

The USDI Fish & Wildlife Service Website shows that Fergus County has five species on Montana's Threatened and Endangered Species list. There are two species listed as endangered, the Black-footed Ferret and the Pallid Sturgeon. One species is listed as threatened, the Canada Lynx. The website also shows two candidate species, the Greater Sage-Grouse and Sprague's Pipit. The requested appropriation for this application has been historically impounded and utilized for stock water for more than 35 years. There is a low likelihood of impact to endangered or threatened species because of this appropriation.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: **No Significant Impact**

The National Wetlands Inventory does show Freshwater Emergent type wetlands in the near vicinity of the reservoir; however, the wetland areas are an expected result of the reservoir impounding water from this drainage for the past 35 years. No significant impacts to wetlands are expected from this permit application; wetland areas may benefit from water stored in the reservoir.

Ponds **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: **No Significant Impact**

The reservoir of interest for this application has been in place many years, impacts to wildlife and waterfowl from the impoundment may be considered beneficial because the stored water will make water available after runoff or precipitation events later in the year.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: **No Significant Impact**

The USDA-NRCS Web Soil Survey indicates that the dominant soil unit in the area of the dam is the Gerdum-Absher complex, a clay soil with 2 to 8 percent slopes. The reservoir area description on the website says this type of soil is somewhat limited because of slope, but indicates this clay soil type is favorable for holding water behind a dam or embankment. The soil is listed as being slightly saline to moderately saline, which is common for the Missouri River Breaks area. The dam did experience issues related to alkali leaching and build-up associated with the flood of 2011, however this was a unique situation incurred by many dams in the breaks related to excessive soil moisture content. This dam has existed for more than 35 years and is not expected to cause any significant impacts to the soil profile.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: **No Significant Impact**

As mentioned numerous times above, this dam has been in place for many years; no new impacts to vegetative cover are anticipated. It is the responsibility of the property owner to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: **No Significant Impact**

It is unlikely air quality will be significantly affected; this project will utilize the existing dam to impound water in the tributary drainage.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: **No Significant Impact**

Not Applicable – Project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: **No Significant Impact**

No additional impacts are expected.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: **No Significant Impact**

The proposed action is consistent with historic cattle operations in the area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: **No Significant Impact**

This proposal should not impact recreational activities in the area, the reservoir has been used for stock watering purposes for over 35 years and purpose will not change.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: **No Significant Impact**

No impacts to human health have been identified.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: **No Significant Impact**

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* **None**

(b) *Local and state tax base and tax revenues?* **None**

(c) *Existing land uses?* **None**

(d) *Quantity and distribution of employment?* **None**

(e) *Distribution and density of population and housing?* **None**

(f) *Demands for government services?* **None**

(g) *Industrial and commercial activity?* **None**

(h) *Utilities?* **None**

(i) *Transportation?* **None**

(j) *Safety?* **None**

(k) *Other appropriate social and economic circumstances?* **None**

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts - No secondary impacts on the physical environment and human population have been identified because of this assessment.

Cumulative Impacts - No cumulative impacts on the physical environment and human population have been identified because of this assessment.

3. *Describe any mitigation/stipulation measures:*

No mitigation or stipulation measures have been described.

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

No action alternative: Deny the application. This alternative would result in none of the benefits of available stock water and the related economic benefits being realized by the water users.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative is the proposed alternative, but only if the Applicant provides the necessary criteria required for issuance of a new Provisional Permit.

2. Comments and Responses

None Received.

3. *Finding:*
*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

None of the identified impacts for any of the alternatives are significant as defined in ARM 36.2.524.

Name of person(s) responsible for preparation of EA:

Name: **Douglas Mann**
Title: **Water Resources Specialist - LRO**
Date: **12/16/2013**